

ABSTRACT

**METHODS OF INCORPORATING
PHOSPHATE/BORATE FIRE RETARDANT FORMULATIONS
INTO WOOD BASED COMPOSITE PRODUCTS**

[0099] A fire-retardant wood-based composite is formed by treating a green wood furnish with an amount of a phosphate/borate fire retardant treatment effective to increase the fire retardancy of the resulting wood-based composite, compared to the fire retardancy of the corresponding wood-based composite lacking the fire retardant. The fire retardant treated green wood furnish is blended with a binder and then bound, as by pressing the furnish, to form a non-leaching fire-retardant wood based composite. Another aspect of the invention is the product formed according to the preceding process. The fire retardant may also act as a catalyst to cure the binder and thus promote binding. Also, the addition of the fire retardant to green wood chips, without the need to dry them to a low moisture content, is believed to be novel.

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